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INDUSTRIAL ART

FRENCH EXHIBITIONS OF INDUSTRIAL ART.

OUR readers who are concerned in the progress of the decorative arts cannot fail to be interested in the reports lately issued on the sixth exhibition of the French Central Union of Fine Arts applied to Industry that was held in Paris in the autumn of 1880. The "Revue des Arts Decoratifs," a specially important and attractive monthly publication, issued by M. Quantin, of the Rue St. Benoît, Paris, and to which allusion has been made more than once in these columns, has devoted a late number to the various documents and reports concerning the exhibition, and these contain valuable material. The success that has greeted these biennial exhibitions has fully justified the anticipations of the original founders of the society. The object of the Union has always been to spread abroad a general knowledge of the arts, to familiarize the designer with the engraver, the inventor with the constructor; and with this object in view the authorities have certainly done their utmost for the encouragement and development of art industry in France.

By the action of the "Union Centrale" schools of design, which were at one time greatly needed throughout the French dominion, have been established on all sides. The society has made it a matter of pride to do all that was possible for the various branches of industry in which art was intimately concerned, and having devoted its earlier exhibitions to something like a general display of the various manners in which art was applied to industry, the various members decided to inaugurate a series of special exhibitions, the first of which was held in Paris during the autumn of 1880. A complete show of every industry and every process connected with a certain branch of labor would, it was thought, be highly acceptable to the cultivated and uncultivated sections of the public, and would enable them to follow in detail the methods adopted, the models copied, the tools used in the manufacture of a thousand and one familiar objects. The society determined, then, that the special exhibition of 1880 should deal with metals and metal work of all kinds, and the success of the venture has been complete. It has been further determined that the exhibition of 1882 shall deal with tissues, paper, skins, and wood (as used in furniture); and that the exhibition of 1884 shall exhibit wood in all its constructive and decorative forms, stone, clay, glass, and plants of all kinds. The exhibitions of the Union for the development of art industry have hitherto been like universal exhibitions on a small scale. The display at the Palais de l'Industrie in the autumn of 1880 was a technical exhibition. There was, however, a small section set aside for the benefit of the exhibitors of general articles of art industry.

Several of the reporters on the various sections of metal work refer to what they term the "Japonisme," or Japanomania, that is pervading art. Messrs. Christofle and Bouilhet have specially distinguished themseves in this industry, and if they have not yet discovered all the secrets of Japanese manufacture they have managed to achieve some combinations that closely resemble in application the very effects they wish to reproduce. They have sought the secret of the "Mokoumé"—that marvellous medley of metals which are combined without melting one into the other, and the separate streaks of which may be traced like the veins in wood. They have contrived a close imitation of this, in which gold, silver, copper, and iron are brought together, each metal retaining its characteristic features, and being thoroughly recognizable, and forming by the combining influence of the fire and the forge a homogeneous metal of rare beauty, which is streaked and veined like the Japanese "Mokoumé." Messrs. Christofle and Bouilhet have discovered several admirable methods of working upon silver, and some of their tea services, coffee pots, salvers, centre pieces, etc., are most handsomely worked in relief, and in "nature printing," as the process of printing on silver by means of the leaves and buds and flowers of the plants themselves is called. The Messrs. Christofle have amassed in the production of their electro wares such a considerable fortune that they have been able to make bold and often successful experiments in the regions of art. They have grouped around them a number of highly-refined and skilful imaginative and executive artists, and they are able to undertake the most complicated and arduous work.

Louis XIV. had a theory that metal work ought not to be confined to small objects, and he ordered the goldsmiths of the Gobelins and the Louvre to make tables, consoles, chairs, stands in which to place the orange trees—in fact, to make every conceivable object of furniture to which the idea might be applied in silver. Nothing was too rich or too luxurious for his majesty of gorgeous memory, and nothing is too bold or too splendid for the Messrs. Christofle. They exhibited some flower stands, some lamp bearers—striking Japanese figures with robes and scarfs decorated in gold and silver relief; some flower vases, the handles of which were wreathed with branches laden with apple blossoms, that were artistic masterpieces in their way. One of the exhibitors of silver work displayed some square and oblong coffee cups and tea cups—an excess of zeal for novelty, for there is an undoubted reason why cups should be round.

In noticing the jewelry exhibited the reporter speaks of the disuse into which gold ornaments have fallen. This metal was always favored by artists, for it lends itself to every style –to the lightest and most delicate lace design as to the most classical severity and solemnity. Gold has been defeated, however, by diamonds: diamonds are brilliant, are striking; you cannot hide them, they flash in your eye. They were not dangerous rivals when they were rare, but the discovery of Cape diamonds has popularized the gem, and gold and gold work have been for a time effaced. One of the exhibitors, M. Fontenay, exhibited some exquisite gold work, and notably some necklaces in filigree gold that should tempt the leaders of fashion to return to this most attractive metal. M. Fontenay has evidently an idea of reviving the popularity of the massive gold necklaces or collars that were worn a couple of centuries ago, and that were splendid specimens of goldsmiths' art work.

Some of the clocks were especially fine. A Louis XVI. clock, exhibited by M. Sandoz, was much admired for its purity and correctness of style; and M. Bernoux displayed among his monumental bronze works a massive clock, the design of which—Father Time with his scythe cutting down with pitiless energy a number of Cupids gambolling on a globe—is due to the magic pencil of Gustave Doré.

The next exhibition of the "Union Centrale des Beaux-Arts appliqués à l'Industrie," which will take place in 1882, will, as we have said, concern tissues, paper, skins, and woods. In the section of tissues will be included cottons, linens, woollen stuffs, silk, flax, hemp, horse-hair, matting, carpets, curtains, embroidery, wool-work, and lace, and all the processes by which the stuffs are manufactured will be fully shown—the processes, for instance, of spinning, weaving, and printing, and also the bleaching, dyeing, and dressing of stuffs. In the paper section the raw material will, of course, be exhibited; then the various processes of paper-making, and the uses to which paper is put. In the skins section every variety of fur will be shown; also various skins tanned and prepared, feathers, ivory, bone, horn, shell, hair, whalebone, shoe-leather, gloves, saddlery, bookbinding, fans, ivory carving, stamped leather, and furnishing materials; and in the wood sections there will be an exhibition of cabinet-work, of wood-carving, of papier mâché—an exhibition which cannot fail to be of the highest interest to the public.

TURKEY CARPETS.

ONE of the most important industries of the Ottoman Empire, and certainly the chief industry of Asia Minor, always excepting agriculture, is the making of carpets. Some of the factories are now furnished with looms quite in the European manner, but it is not in such factories that these famous fabrics are chiefly produced; the peasants in their mud houses, and the nomad Yuruks in their tents, all contribute to the many kinds that are made. The annual value of the carpets of Anatolia approaches $500,000; and of these but a small number remain in Turkey when compared with those distributed over Europe and America, where the demand is constantly increasing. About three-fourths of the carpets go to England (but not all for consumption there) and about one-sixth to France. These large exports keep prices at a fair level, and in the best shops of London and Paris all kinds of Eastern carpets can be had for ready money more cheaply than the casual traveller can buy them on the spot. This applies to the finest old carpets as well as to the new ones; for even with a good and trusty dragoman one may have to lose the best part of a day haggling for half a dozen velvety mellowed Daghestans with a carpet dealer of Smyrna, Cairo, or Alexandria, and after all be victimized to some extent.

Ooshak, a large village of artisans about six days' journey due east from Smyrna, is the head quarters of the manufacture of the carpets known for generations as "Turkey carpets," and in France as "tapis de Smyrne." The patterns are Turkish, or rather Arabesque. At Ooshak there are at full work hundreds of the looms called "tesyak," employing about 3000 women, and turning out about 85,000 square yards of carpets of all sizes and qualities annually. A carpet between seven and eight yards long will employ eight women at once, working side by side. Their wages are about eight piastres a week—about forty-two cents for each yard of carpet woven. The wool used comes from the villages round about, and is bought for about a cent a pound in its uncleaned state. When washed and bleached it loses at least one-third of its weight. The foundation of the carpet is made of an inferior wool and the whole material of the fabric may cost about sixty cents a yard. This does not include the dyeing, which is managed by the men and forms the chief item of cost.

The colors that have so long satisfied our Western eyes are produced for the most part with madder, cochineal, and indigo. Madder root, or alizari, "Rubia tinctorum," gives the fine old "Turkey red," and is largely grown in Asia Minor; the best roots cost from eight to ten cents a pound. Cochineal is imported from England and France, and being an expensive dye considerably raises the price of the carpets. It was not used before the year 1856; anterior to that date madder alone was employed for reds, and this fact gives an epoch for the carpet fancier. The indigo is brought from England or from India. Yellows are got from the seeds of "Rhamnus alaternus," which is cultivated largely in the eastern parts of Karamania, and is getting dearer every day; it now costs about thirty-two cents a pound. Other dyes, which are imported from Europe, are used in small quantities to obtain the more tender tints and tone down the general effect. The "velvet" carpets which have attained such a vogue were not made at Ooshak till the year 1860.

At Ghiurdhes, which is also a village of artisans in Anatolia, two days' journey to the north-east of Smyrna (it numbers 9000 inhabitants, chiefly Turks), the carpets known as Persian are imitated to perfection. Three qualities are made. The finest are called "hali" or "kilim," and are of large size, containing sometimes as much as one hundred square yards; then there are the "sidjiadeh" and the "kiari kadim"—rugs and small carpets which do not exceed five or six square yards, and are often made much smaller for the native divans. About 20,000 yards of all these sorts are produced annually at Ghiurdhes.

The well-known oblong carpets of a rougher quality, often joined down the middle, and called in some places Karamanian, are made by the nomad Yuruks in wooden frames, to which the web is fixed by a sort of comb made of iron. This tribe came into Anatolia centuries ago. They now speak Turkish ; and although they profess a belief in Mohammed, they in reality follow no religion, and have neither church nor priest. They possess large herds of cattle, camels, and goats. In the summer they go to the mountains, and in the winter descend into the valleys and plains. They are not agricultural though they breed their own cattle, and make butter and cheese. They are also wood-cutters and hunters, and are very hospitable, which does not prevent them from thieving and marauding when opportunities offer.

The figures that have been given above for wages and materials show that these carpets can be produced at a moderate expense. They are not in reality the costly luxuries which, before the development of trade and consequent competition, they were long considered in Europe. One of the most trusted merchants in Smyrna now offers the finest Ooshak, in which all the reds are cochineal, for a little over $4.50 a square yard ; the second quality, in which the reds are half cochineal, half madder, for less than $3.00 and the Ghiurdhes carpets he rates at $3.75 free on board. The prices seven years ago were about the same, but thirty years back they were not more than three-fourths of these rates. Within that period the constantly growing demand and the consequent increase in the cost of labor, combined with the dearness of the best dye-stuffs, induced some makers to endeavor to reduce cost price by using cheaper coloring matters, such as aniline ; the results were brilliant and startling colors, with a falling-off in quality and solidity. These adventurers, it is gratifying to know, soon became convinced that the innovation would inevitably destroy the reputation of Turkey carpets and spoil their market, and they happily returned to the old methods.

But there is a danger to be quite as much dreaded, says a writer in the St. James's Gazette, a danger which threatens not alone the colors, but the designs of the old productions. Some of the manufacturers, too desirous of complying with the demands of a vulgar taste, are replacing the inimitable old free Turkish designs by stiff modern patterns. The merchant whose prices have been given above offers to execute any order, no matter what the dimensions or patterns may be, and the same fatal complacency has penetrated even to the weavers in the interior of Anatolia. If the evil goes on it will soon bring to an end the ancient carpet industry of Asia Minor—an industry that has more than antiquity to recommend it.

INDUSTRIAL ART IN INDIA.

In every Indian village all the traditional handicrafts are still to be found at work. Outside the entrance, on an exposed rise of ground, the hereditary potter sits by his wheel moulding the swift revolving clay by the natural curves of his hands. At the back of the houses which form the low irregular street there are two or three looms at work in blue and scarlet and gold, the frames hanging between the acacia trees, the yellow flowers of which drop fast on the webs as they are being woven. In the street the brass and copper smiths are hammering away at their pots and pans ; and farther down, in the veranda of the rich man's house, is the jeweller working rupees and gold mobes into fair jewelry, gold and silver earrings, and round tires like the moon, bracelets and tablets and nose-rings, and tinkling ornaments for the feet, taking his designs from the fruits and flowers around him, or from the traditional forms represented in the paintings and carvings of the great temple which rises over the grove of mangoes and palms at the end of the street above the lotus-covered village tank. At half-past three or four in the afternoon, the whole street is lighted up by the moving robes of the women going down to draw water from the tank, each with two or three water jars on her head ; and so going and returning in single file, the scene glows like Titian's canvas, and moves like the stately procession of the Panathenaic frieze. Later the men drive in the milk-gray kine from the moaning jungle, the looms are folded up, the coppersmiths are silent, the elders gather in the gate, the lights begin to glimmer in the fast falling darkness, the feasting and the music begin, and the songs are sung late into the night from the Ramayana or Mahabharata. The next morning with sunrise, after simple ablutions and adorations performed in the open air, before their houses, their same day begins again.

STAINING WOOD.

Staining wood may be divided into two classes—the staining and dyeing proper, and a sort of painting in which the coloring matter in a liquid state partially penetrates the pores of the wood and is held by them. Dyeing, says a contemporary, colors the fibres to a greater or less depth, in the same manner as the fabrics are colored by the deposition of a coating of colored matter in and upon them, and occasionally by actually changing the colors of the fibres themselves. In staining, the pigment usually penetrates but a little way into the wood, and a scratch or abrasion of the surface will show the natural color. In dyeing, the coloring matter can usually be made to stain the fibres for some little distance into the body of the wood, and thus a more durable color is effected. In the case of veneers, not over an eighth of an inch thick, it is possible, by careful manipulation, to produce a tolerably even color throughout the wood. In general, wood can be colored in almost any tint, from red rose through the blues to black. Most of the bright colors, however, are liable to fade.

At the present time it is often convenient to imitate the color of some precious wood upon one less costly. Thus we may, upon cherry or maple, imitate rosewood or ebony. Ebony, in fact, can be imitated upon a great variety of woods ; the method of producing the color, must be varied for the different kinds Books of recipes are filled with instruction for producing black-walnut stains and dyeing woods to imitate black-walnut. A more useless or senseless practice could hardly be imagined, for black walnut is really the last wood in the world which one would wish to imitate. Its color is bad, and its only recommendation is that it is easily worked and is considerably harder than pine.

At the present time, mahogany is somewhat difficult to get, and it is fashionable to use substitutes for it which are mahoganised. Cherry is one of the most commonly used woods for this purpose. If properly treated, cherry is one of the finest cabinet woods, and it seems almost a pity to use it for imitating anything else, even though it be mahogany. A great number of recipes are given in the books for mahoganising, but the workman in using them is usually in the dark, because no explanations of the reasons for the directions are given. One recipe says, after getting the surface of the wood smooth, rub with a solution of nitric acid and then apply a solution of dragon's blood. The solution is made by dissolving one ounce in a pint of alcohol and adding one-third of an ounce of carbonate of soda or common washing soda. Sulphuric acid will answer just as well. Its office is to darken the wood and prepare it for receiving the dye, which is the dragon's blood. Recent experiments lead us to believe that the only advantage of the washing soda is to neutralise any of the acid which may remain behind. Another recipe calls for the acid treatment of the wood first, which is then followed by a liquid made with two ounces of logwood, eight ounces of madder, one ounce of fustic and one gallon of water. This is boiled two hours, and then applied to the wood. Unfortunately, there are no recipes, so far as we know, which give directions for using logwood, dragon's blood, etc., in the shape in which they are found in the shop. For example, instead of logwood in chips, it is much more convenient to buy a little four-ounce box of the extract of logwood, and instead of the madder coming in the old form it can now be obtained in the form of a solid which is all ready to be dissolved in boiling water. By dissolving separately the logwood, dragon's blood, and madder in water, and then after getting them of good strength, mixing a little of each and drying on a waste piece of wood, the proper proportions necessary to get just the color desired are easily found. It must be borne in mind that the logwood gives a purplish tone to the mixture, and that the others, if kept to themselves, will only produce a yellow. The stains when upon cherry, without an acid being previously applied, will give a sort of dirty yellowish brown. If the acid is added afterward, the red will speedily make its appearance. Besides producing the red color, the acid has another effect, which is valuable in imitating old and dark mahogany—it darkens the wood very materially. The greatest amount of darkening can be obtained by brushing the wood with the weak acid and then warming it. The heat intensifies the action of the acid, but if too long continued it is possible to scorch the surface, making it look as though a hot iron had passed over it. Indeed, acid may be used for staining almost any wood a dark brown. It would be possible, by a combination of yellow and red stains, to produce the color of mahogany on almost any of our common woods. In Dick's Encyclopædia we find the following directions for producing a dark mahogany color : "Boil half a pound of madder and two ounces of logwood in a gallon of water ; apply with a brush while the liquid is hot ; when dry, go over the whole with a solution of pearlash made of two drams of pearlash to a quart of water." We have some doubts as to the action of this solution on cherry, though it might act well enough on other woods. Permanganate of potash is often mentioned as being a good material for imitating certain kinds of wood. It comes in the form of crystals which are readily dissolved in water. When put upon the wood it penetrates deeply and produces a pink color at first, but this, by the decomposition of the permanganate of potash itself, soon changes to a dark brown. This is a durable color, consisting of a metal oxide distributed wherever the liquid has penetrated.

Many woods get their best color by age. Among these are mahogany, oak, and cherry. Usually, by imitating the chemical action to which they are subject in course of time, we may produce the same results quickly. If we wash oak with lime water, or, better yet, aqua ammonia, we darken its color as though with age. Lime water also darkens mahogany, and greatly improves the colors of some kinds. It also has an effect on cherry. Maple is an easily stained wood, but it appears to have been somewhat neglected by those who wish to imitate the more valuable woods. The only colors which we remember having seen upon maple are a dark blue-grey, produced by an iron solution and a yellowish tint due to the varnish.

ANCIENT ART WORKMEN.

In a paper recently read before the Birmingham Architectural Association by Mr. John Roddie, some interesting details are given concerning the workmen who assisted in the great revival of art in Italy. It appears to have been the rule at that time that a master should work with a few pupils under him—an average of half-a-dozen pupils or workmen to one master—and when the work was very large several masters were engaged upon it. Among the greatest of these masters was Nicolo Pisano. He it was, who, finding the art of sculpture mummified, bound in Byzantine cerements, touched the dead thing with his miraculous fingers and gave it life. Little is known of his earlier days beyond the fact that he worked with his father as a stone-mason. The first time we are introduced to him as a sculptor he is working upon the scaffolds at Lucca Cathedral (1233), carving the pediment over the north portal—a "Descent from the Cross," full of bold vigor in the composition, and full of error in its details no doubt, but still such a work as had not been cut in Italy for nearly a thousand years.

Nearly thirty years after that (1260), he is carving the famous pulpit at Pisa in an entirely new style. The fame of this work brought him a commission from the city of Sienna. The Siennese, emulous of the fortunate Pisans, would have a pulpit in their cathedral still more splendid. Pisano signed the contract for the Sienna pulpit on the 29th of September, 1266, and the bond states that "Nicolo, with his men, Arnolfo and Lapo, and, if he desires it, his son Giovanni, shall come to Sienna in the beginning of March in the following year in order to prepare a pulpit for the cathedral. The master is to receive eight soldi a day, each of his assistants six, and his son four." The receipts for payment are still extant, and end in November, 1268, showing that the work was finished in a year and a half. And the four men must have worked like beavers to have done it in the time. The truth is the four, six, or eight soldi a day had very little to do with that speed. The men were in earnest, and gathered delight in their work, just as the laboring bees gathered honey in the roses. To them a dilatory day would have been a day of wretchedness.